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EXAMINER	
MAIS, MARK A	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/608,588	POLYAKOV, EVGENY	
	Examiner	Art Unit	
	Mark A. Mais	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 4, 2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10, 17, and 19-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker et al. (USP 6,266,700).

4. With regard to claims 1, 20, 21 and 22, Baker et al. discloses a method of communicating over a plurality of different target media *each having a protocol* **[the logic control module can perform a plurality of functions such as data manipulation, e.g., parsing, filtering, and analysis, col. 2, lines 50; logic control module 16 supports the configuration/reconfiguration of the programmably configurable protocol descriptions to handle different transmission hardware, protocols, and suites (in order to transmit or receive data over that different transmission hardware, protocol, or suite), col. 2, lines 59-67]**, comprising:

providing, for each of the plurality of different target media, a plurality of communication element types *hierarchically representing different communication elements for the respective protocol*, each communication element type being a user-definable data structure that pertains to a particular layer of the respective *protocol*, **[the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions which allow changes to existing protocols and supports new protocols to be added, col. 2, lines 53-59; any possible organization of fields for any possible protocol, col. 7, lines 17-20; defining the overall structure of the network protocol and reference other information (e.g., other protocols) relative to that network protocol, col. 7, lines 24-27]**,

wherein at least some communication element types relating to higher layers of the protocol include references to one or more communication element types relating to lower layers of the protocol, and wherein the plurality of communication element types are accessible to at least one software program for directing communication over the respective target medium **[this is inherent in a system (software controlled) that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values (col. 2, lines 1-5) (generating multiple instances—claim 21); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used (table 4, lookup structure record, col. 8, lines 35-53) (processing multiple instances—claim 22) (reference to the message type—claim 20), then (2) finding the fields that describe the protocol header (table 1, protocol control record, col. 7, lines 24-46) (reference to the word type—claim 20), and then (3) computing the protocol checksum (table 6, checksum record, col. 9, lines 10-20 (reference to the field type—claim 20); see also this process is described in flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235]**.

5. With regard to claim 25, Baker et al. discloses communicating over a target medium having a protocol **[the logic control module can perform a plurality of functions such as data manipulation, e.g., parsing, filtering, and analysis, col. 2, lines 50; logic control module 16 supports the configuration/reconfiguration of the programmably configurable protocol descriptions to handle different transmission hardware, protocols, and suites (in order to transmit or receive data over that different transmission hardware, protocol, or suite), col. 2, lines 59-67]**, comprising:

providing a plurality of communication element types for representing different communication elements of the protocol, each of the plurality of communication element types being a user-definable data structure that pertains to a particular layer of the protocol; accessing at least one of the plurality of communication element types by a software program, and **[the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions which allow changes to existing protocols and supports new protocols to be added, col. 2, lines 53-59; any possible organization of fields for any possible protocol, col. 7, lines 17-20; defining the overall structure of the network protocol and reference other information (e.g., other protocols) relative to that network protocol, col. 7, lines 24-27]**,

directing communications, responsive to accessed communication element types, over the target medium using the software program **[this is inherent in a system (software controlled) that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values (col. 2, lines 1-5); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used (table 4, lookup structure record, col. 8, lines 35-53) (reference to the message type), then (2) finding the fields that describe the protocol header (table 1, protocol control record, col. 7, lines 24-46) (reference to the word type), and then (3) computing the protocol checksum (table 6, checksum record, col. 9, lines 10-20 (reference to the field type); see also this process is described in flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235]**.

6. With regard to claim 26, Baker et al. discloses *communicating over a target medium having a protocol* **[the logic control module can perform a plurality of functions such as data manipulation, e.g., parsing, filtering, and analysis, col. 2, lines 50; logic control module 16 supports the configuration/reconfiguration of the programmably configurable protocol descriptions to handle different transmission hardware, protocols, and suites (in order to transmit or receive data over that different transmission hardware, protocol, or suite), col. 2, lines 59-67]**, *comprising:*

providing a plurality of message types and word types for representing communications using the protocol, each of the plurality of message types and word types being a user-definable data structure; arranging the plurality of message types and word types hierarchically, with at least one message type including a reference to at least one word type; accessing at least one of the plurality of message types and word types by a software program **[the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions which allow changes to existing protocols and supports new protocols to be added, col. 2, lines 53-59; any possible organization of fields for any possible protocol, col. 7, lines 17-20; defining the overall structure of the network protocol and reference other information (e.g., other protocols) relative to that network protocol, col. 7, lines 24-27]***; and*

directing communication, responsive to the accessed message type and/or word type over the target medium using the software program **[this is inherent in a system (software controlled) that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values (col. 2, lines 1-5); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used (table 4, lookup structure record, col. 8, lines 35-53) (reference to the message type), then (2) finding the fields that describe the protocol header (table 1, protocol control record, col. 7, lines 24-46) (reference to the word type), and then (3) computing the protocol checksum (table 6, checksum record, col. 9, lines 10-20 (reference to the field type); see also this process is described in flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235]**.

7. With regard to claim 2, Baker et al. discloses *creating, by one of the software programs,* instances of *one or more* communication element type*s* for exchanging data on the respective target medium **[can be configured and reconfigured to implement data manipulation functions and accommodate substantial network (bus) modification, col. 2, lines 59-67]**.

8. With regard to claim 3, Baker et al. discloses *wherein the step of providing comprises defining one or more of the* plurality of communication element types responsive to exchanges allowed by the protocol of the respective target medium **[it is inherent that the communication element types would be defined; *see also* one or more programmable configurable program descriptions, col. 2, lines 50-52]**.

9. With regard to claim 4, Baker et al. discloses creating, *by one of the software programs,* an instance of at least one of the plurality of communication element types **[the system can perform data manipulation, i.e., the logic control module can perform data manipulation, e.g., parsing, filtering, and analysis, col. 2, lines 50]**; and

processing *each said* instance for exchanging information on the respective target medium **[logic module 16 processes the program description files and extracts field values or filtered values, col. 6, lines 15-19]**.

10. With regard to claim 5, Baker et al. discloses that *at least one of* the communication element type*s* defines a structure for transmitting data over the target medium **[logic control module 16 supports the configuration/reconfiguration of the programmably configurable protocol descriptions to handle different transmission hardware, protocols, and suites (in order to transmit data over that different transmission hardware, protocol, or suite), col. 2, lines 59-67]**.

11. With regard to claim 6, Baker et al. discloses that *at least one of* the communication element type*s* defines a structure for receiving data over the target medium **[logic control module 16 supports the configuration/reconfiguration of the programmably configurable protocol descriptions to handle different transmission hardware, protocols, and suites (in order to receive data over that different transmission hardware, protocol, or suite), col. 2, lines 59-67]**.

12. With regard to claim 7, Baker et al. discloses that at least one communication element type is a message type that includes a portion for holding message data associated with instances of the respective message type **[a data file 20 includes a protocol record organized into a plurality of predefined fields, col. 6, lines 64 to col. 7, lines 1; and can be organized to be used with any possible protocol, col. 7, lines 17-20]**.

13. With regard to claim 8, Baker et al. discloses that the message data has a fixed length **[e.g., for example, a particular protocol header length may be fixed, col. 7, lines 3-7]**.

14. With regard to claim 9, Baker et al. discloses that the message data has a variable length **[a data file 20 includes a protocol record organized into a plurality of predefined fields, col. 6, lines 64 to col. 7, lines 1; and can be organized to be used with any possible protocol, col. 7, lines 17-20]**.

15. With regard to claim 10, Baker et al. discloses that *at least one of* the communication element type has a fixed portion that is the same for all instances of the communication element type **[e.g., for example, a particular protocol header length may be fixed, col. 7, lines 3-7]**.

16. With regard to claims 17, 23, and 24, Baker et al. discloses a method of structuring communications over a communication medium having a known protocol, comprising:

providing *a plurality of* communication element types for *representing communication elements at different layers of the protocol*, each communication element type having a user-definable structure that pertains to a corresponding layer of the protocol **[the logic control module can perform a plurality of functions such as data manipulation, e.g., parsing, filtering, and analysis, col. 2, lines 50; programmably configurable protocol descriptions allows changes to existing protocols and supports new protocols to be added, col. 2, lines 53-59; any possible organization of fields for any possible protocol, col. 7, lines 17-20; (inherently, this is a test program—claim 23)]**.;

in a software program, creating an instance of at least one *of the plurality of* communication element types **[creating a programmably configurable general protocol description, col. 5, lines 18-21]**;

varying at least one characteristic of the instance *in the software program and operating the software program to direct communications over the communications medium according to the instance with the varied characteristic and* to determine susceptibility of equipment operatively connected to the *communication* medium to the varied characteristic **[this is interpreted as determining (testing) dynamic/varying individual field values (e.g., using filtering control logic) and generating traffic with the ability to specify the methods for varying individual field values, col. 4, lines 44-49; thus, after entering the criteria to be tested/filtered, the control logic computes the validity, col. 18, lines 1-25; see also filtering criteria can be specified to any subset of bits in any field by allowing the criteria to be applied to every instance of that field which appears more than once in a frame, col. 18, lines 55-60 (testing varied characteristics of the multiple instances—claim 24)]**.

17. With regard to claim 19, Baker et al. discloses a method of creating an interface with a communication medium having a protocol, comprising:

creating a plurality of user-definable communication element types for representing *communication elements at* different layers of *the protocol* **[the logic control module can perform a plurality of functions such as data manipulation, e.g., parsing, filtering, and analysis, col. 2, lines 50; the user-defined data structure is interpreted as the programmably configurable protocol descriptions which allow changes to existing protocols and supports new protocols to be added, col. 2, lines 53-59; any possible organization of fields for any possible protocol, col. 7, lines 17-20]**,

saving the *plurality of* communication element types in a computer readable format **[written and saved in PDF format, col. 10, lines 51-58]**;

instantiating, *via the software program,* one or more of the plurality of communication element types to create *one or more* specific instances of communications over the communication medium **[this is inherent in a system (software controlled) that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values (col. 2, lines 1-5); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used (table 4, lookup structure record, col. 8, lines 35-53) (reference to the message type), then (2) finding the fields that describe the protocol header (table 1, protocol control record, col. 7, lines 24-46) (reference to the word type), and then (3) computing the protocol checksum (table 6, checksum record, col. 9, lines 10-20 (reference to the field type); see also this process is described in flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235]**, *and operating the software program to run one or more specific instances of communications over the communication medium* **[this is interpreted as generating traffic with the ability to specify the methods for varying individual field values, col. 4, lines 44-49; *see also* specific instances of communications using the system: Fig. 11, running PARSEFRAME 100, running PARSEFIELDS 130/132, Fig. 12, running PARSEPROTOCOL 150, and Fig. 13A running PARSEFIELDS 200]**.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claims 12-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. as applied to claims 1-10, 17, and 19-26 above.

20. With regard to claims 12-16 and 18, Baker et al. does not specifically disclose that each instance of the message type includes a portion for prescribing timing. However, Baker et al. discloses being configured and reconfigured to implement data manipulation functions and accommodate substantial network (bus) modification, **[col. 2, lines 59-67]**. Baker et al. also discloses one or more programmable configurable program descriptions, **[col. 2, lines 50-52]**. Baker et al. discloses a system (logic control module), which can perform data manipulation, e.g., parsing, filtering, and analysis **[col. 2, lines 50]** wherein the logic module 16 processes the program description files and extracts field values or filtered values **[col. 6, lines 15-19]**. Additionally, Baker et al. discloses a logic control module 16 that supports the configuration/reconfiguration of the programmably configurable protocol descriptions to handle different transmission hardware, protocols, and suites (in order to transmit/receive data over that different transmission hardware, protocol, or suite) **[col. 2, lines 59-67]**. It is obvious to those of ordinary skill in the art that messages/words/packets in several protocols include timing characteristics (e.g., leading gaps **[claims 13 and 14]**, trailing gaps **[claim 16]**, and message timeouts **[claim 15]**), which must be specified for correct synchronization and proper extraction of headers and payloads. Moreover, Baker et al. discloses data file 20, which includes a protocol record organized into a plurality of predefined fields **[col. 6, lines 64 to col. 7, lines 1]**, which can be organized to be used with any possible protocol **[col. 7, lines 17-20]**. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included timing characteristics in the programmably configurable message types to handle substantial network (bus) modification as well as different transmission hardware, protocols, and suites

because such timing characteristics are necessary for working with different types of technology and protocols which rely on those timing-based characteristics.

Response to Arguments

21. Applicant's arguments filed August 4, 2006 have been fully considered but they are not persuasive.

22. With respect to claim 1, Applicant's representative argues that Baker et al. does not disclose, teach, or suggest a communication elements types or a software program **[Applicant's Amendment of August 4, 2006, page 3, lines 9-13]**. The examiner respectfully disagrees.

23. As stated for rejected claim 1 above, the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions, which allow changes to existing protocols and supports new protocols to be added **(col. 2, lines 53-59)**. Baker et al. discloses that any possible organization of fields for any possible protocol **(col. 7, lines 17-20)**. Moreover, Baker et al. discloses a software controlled system that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values **(col. 2, lines 1-5)** (generating multiple instances—claim 21); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used **(table 4, lookup structure record, col. 8, lines 35-53)** (processing multiple instances—claim 22) (reference to the message type—claim 20),

then (2) finding the fields that describe the protocol header **(table 1, protocol control record, col. 7, lines 24-46)** (reference to the word type—claim 20), and then (3) computing the protocol checksum **(table 6, checksum record, col. 9, lines 10-20)** (reference to the field type—claim 20); **(*see also* this process is described in (software program) flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235)**. Thus, for example, the checksum is imbedded in the protocol header, which is imbedded within the protocol control record [derived from the received frame].

24. With respect to claim 17, Applicant's representative argues that Baker et al. does not disclose, teach, or suggest a communication elements types or a software program **[Applicant's Amendment of August 4, 2006, page 4, lines 23-24, 30-33]**. The examiner respectfully disagrees.

25. As stated for rejected claim 17 above, the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions, which allow changes to existing protocols and supports new protocols to be added **(col. 2, lines 53-59)**. Baker et al. discloses that any possible organization of fields for any possible protocol **(col. 7, lines 17-20)**. Moreover, Baker et al. discloses a software controlled system that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values **(col. 2, lines 1-5)** (generating multiple instances—claim 21); for example, this is interpreted as the system (1) receiving and determining

the next protocol description structure to be used **(table 4, lookup structure record, col. 8, lines 35-53)** (processing multiple instances—claim 22) (reference to the message type—claim 20), then (2) finding the fields that describe the protocol header **(table 1, protocol control record, col. 7, lines 24-46)** (reference to the word type—claim 20), and then (3) computing the protocol checksum **(table 6, checksum record, col. 9, lines 10-20)** (reference to the field type—claim 20); **(*see also* this process is described in (software program) flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235)**. Thus, for example, the checksum is imbedded in the protocol header, which is imbedded within the protocol control record [derived from the received frame].

26. With respect to amended claim 17, Applicant's representative argues that the amended claim limitations (creating and varying a characteristic to determine equipment operation) are not disclosed in Baker et al. **[Applicant's Amendment of August 4, 2006, page 4, lines 25-26]**. The examiner respectfully disagrees.

27. As stated for the rejection of amended claim 17 above, this is interpreted as determining (testing) dynamic/varying individual field values (e.g., using filtering control logic) and generating traffic with the ability to specify the methods for varying individual field values **(col. 4, lines 44-49)**. Thus, after the user/operator enters the criteria to be tested/filtered, the control logic computes the validity **(col. 18, lines 1-25)** and therefore, determines equipment operation (susceptibility to the filtered criteria). Baker et al. discloses how dynamic/robust this testing is

by specifying that the filtering criteria can be applied to any subset of bits in any field in every instance of that field which appears more than once in a frame **(col. 18, lines 55-60)**.

28. With respect to claim 19, Applicant's representative argues that Baker et al. does not disclose, teach, or suggest a creating and saving communication elements types or a software program **[Applicant's Amendment of August 4, 2006, page 5, lines 15-19]**. The examiner respectfully disagrees.

29. As stated for rejected claim 19 above, the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions, which allow changes to existing protocols and supports new protocols to be added **(col. 2, lines 53-59)**. Baker et al. discloses that any possible organization of fields for any possible protocol **(col. 7, lines 17-20)**. Moreover, Baker et al. discloses a software controlled system that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values **(col. 2, lines 1-5)**, (thus creating and saving); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used **(table 4, lookup structure record, col. 8, lines 35-53)** (reference to the message type), then (2) finding the fields that describe the protocol header **(table 1, protocol control record, col. 7, lines 24-46)** (reference to the word type), and then (3) computing the protocol checksum **(table 6, checksum record, col. 9, lines 10-20)** (reference to the field type); **(*see also* this process is described in (software program) flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132,**

then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235). Thus, for example, the checksum is imbedded in the protocol header, which is imbedded within the protocol control record [derived from the received frame].

30. With respect to claim 25, Applicant's representative argues that Baker et al. does not disclose, teach, or suggest hierarchical communication elements types or a software program **[Applicant's Amendment of August 4, 2006, page 5, lines 28-33]**. The examiner respectfully disagrees.

31. As stated for rejected claim 25 above, the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions, which allow changes to existing protocols and supports new protocols to be added **(col. 2, lines 53-59)**. Baker et al. discloses that any possible organization of fields for any possible protocol **(col. 7, lines 17-20)**. Moreover, Baker et al. discloses a software controlled system that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values **(col. 2, lines 1-5)**, (thus creating and saving); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used **(table 4, lookup structure record, col. 8, lines 35-53)** (reference to the message type), then (2) finding the fields that describe the protocol header **(table 1, protocol control record, col. 7, lines 24-46)** (reference to the word type), and then (3) computing the protocol checksum **(table 6, checksum record, col. 9, lines 10-20)** (reference to the field type); **(*see also* this process is described in (software program) flowchart format:**

Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235). Thus, for example, the checksum is imbedded in the protocol header, which is imbedded within the protocol control record [derived from the received frame].

32. With respect to claim 26, Applicant's representative argues that Baker et al. does not disclose, teach, or suggest hierarchical message and word types or a software program **[Applicant's Amendment of August 4, 2006, page 6, lines 4-10]**. The examiner respectfully disagrees.

33. As stated for rejected claim 26 above, the user-defined hierarchical data structure is interpreted as the programmably configurable protocol descriptions, which allow changes to existing protocols and supports new protocols to be added **(col. 2, lines 53-59)**. Baker et al. discloses that any possible organization of fields for any possible protocol **(col. 7, lines 17-20)**. Moreover, Baker et al. discloses a software controlled system that parses frames and breaks them up into individual protocols and fields necessary for filtering, gathering statistics, generating network traffic, routing data, verifying field values **(col. 2, lines 1-5)**, (thus creating and saving); for example, this is interpreted as the system (1) receiving and determining the next protocol description structure to be used **(table 4, lookup structure record, col. 8, lines 35-53)** (reference to the message type), then (2) finding the fields that describe the protocol header **(table 1, protocol control record, col. 7, lines 24-46)** (reference to the word type), and then (3) computing the protocol checksum **(table 6, checksum record, col. 9, lines 10-20)** (reference to

the field type); (*see also* **this process is described in (software program) flowchart format: Fig. 11, PARSEFRAME 100, GET CURRENTPROTOCOL 102, then PARSEFIELDS 132, then Fig. 13A, PARSEFIELDS 200, then Fig. 13B, VERIFY CHECKSUM 235).** Thus, for example, the checksum is imbedded in the protocol header, which is imbedded within the protocol control record [derived from the received frame].

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Jones (USP 6,550,235), Universal Communication system.

(b) Hirata et al. (USP 5,727,149), Network interface apparatus and data transmission control method thereof.

(c) Hebert (USP 5,826,030), Telecommunications switch having a universal API with single call processing message including user-definable data and response message each having a generic format.

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is 572-272-3138. The examiner can normally be reached on M-Th 5am-4pm.

36. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

37. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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